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The State of Computer Science Facilities of Schools Across the United States that are Comparable to Illinois Wesleyan University

Sarah A. Bartz '93
Illinois Wesleyan University

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by Sarah A. Bartz

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Dr. Lisa Brown

Abstract

The purpose of this study is to compare Illinois Wesleyan's academic computer facilities with those at other comparable U.S. colleges and universities. This study also investigates factors affecting these facilities such as the methods other institutions use to deal with and plan for the constantly changing computer world. To obtain this information a survey was mailed to over 250 institutions across the U.S. that were considered comparable to IWU. These institutions include the Associated Colleges of the Midwest, the Oberlin Group, and some of the top colleges and universities in the U.S. as ranked in U.S. News and World Report's "America's Best Colleges". In order to facilitate a high return rate the survey was kept short and simple, letters were personalized whenever possible, a self-addressed and stamped return envelope was provided, and a copy of the results was promised to those who participated. Ninety-seven useable responses were received, which provided information such as: the number and type of computers and computer operating systems, the ability of students to remotely connect to the campus network, the facilities hours, the disciplines that use the facilities most, the number and type of staff, the reporting structure, the budget, the upgrading policy, and the education level of the director. These responses were then analyzed based on the size and budget of the school and compared with Illinois Wesleyan University.

Background

This research project began because of the drastic changes that have occurred within the last four years in Illinois Wesleyan's computer facilities. Because of these changes, it seemed interesting to see how our facilities compared with those at other similar collages and universities. Also seeing how fast technology has changed in these four years, there was a need to know how these colleges dealt with those changes and planed for the future. It seemed that if this information could be obtained, it would be of great benefit in planning for Illinois Wesleyan's new science building and all of its new computing facilities.

In 1989, the "Computer Lab" at Illinois Wesleyan University consisted of a small, warm, dirty, overcrowded classroom in Shaw Hall. This lab had only 13 Tandy 8088's, 2 Tandy 286's, 1 AppleII-E, 1 AppleII-GS, and 4 terminals connected to the University of Illinois. These computers shared 4 dot-matrix printers -there were no laser printers. There were approximately 7 different software packages available for use on these computers including: Lotus, Pascal, yStat, Word Perfect, and Supercalc.

Then in the Fall of 1990 the brand new computer facilities in Buck Memorial Library were opened for student use. This was a tremendous improvement over the lab in Shaw Hall. The new facility provided over 120 computers divided between IBM 286's, Macintosh, and even a few specialized computers in the Interactive Learning Center. Additionally, the new lab provided students with 44 dot-matrix printers and 3 laser printers. The software available for student use was greatly expanded to

47 different programs. These new resources helped improve many of the courses throughout the curriculum considerably, and allowed many more students the necessary experience of working with computers within their major.

What lies ahead? Soon Illinois Wesleyan will be building its new science building including many more computing facilities. It is expected that over 100 new computers will be added, with one or two laser printers in each class room, and many additional printers. Undoubtedly many more software packages will be purchased to make use of these new facilities. How will these new facilities be managed, maintained, and upgraded? How will they compare with other similar colleges and universities that prospective students will be evaluating? Computer technology is so much a part of today's business world, that these questions can not be ignored by a college such as Illinois Wesleyan if it is to maintain a number one rating in its class.

So, it seemed an opportune time to survey some other colleges and universities and see what types of facilities they had, and how they managed those resources. The first question was who to survey. The goal was to pick as many schools that a perspective student might compare with Illinois wesleyan as possible. Size was not a concern at first, because many colleges' graduate school enrollments were included in their size. Also, a student's first consideration might be the quality of the facilities, and then the size. So the quality of the school became the focus.

The next decision was how to survey these colleges and universities.

Options included mailing the survey, using a phone to survey, or surveying in person. Performing the survey in person would be the most effective, since it would be easiest to tell if the person fully understood the questions and the surveyor would be able to answer any questions the respondent might have. However, this method would be extremely expensive to implement on a large sampling of colleges scattered across the United States. The next choice was surveying by phone. This method still retained the advantage of being able to answer any questions that the person might have quickly and easily and being able to provide extra explanation. However, surveying by phone would still be very costly, and it may be very difficult to catch the director of the computing facilities without having to call back several times. So, mailing the survey to the directors was considered. Here, the ability to interact with the director was lost, but the cost would be considerably lower. Since cost was a very important factor, the decision was made to mail the surveys.

Now a new question arose. Should the surveys be personalized? And, to what extent? Should the person's own name be printed on the envelope? the letter? Should each letter be signed by hand? I reviewed several different studies on the issue and found that while personalizing did produce a slightly higher return rate, it was not statistically significant enough to warrant the cost involved in personalization.

The next goal was to be sure that everyone understood the survey and was inclined to complete it. Again I researched effective methods for creating surveys and found that to insure a high return rate, the survey should be kept as clear, simple and short as possible. The amount of writing that the

user was required to do should be limited and simple "check the box" type questions should be used as much as possible. This would not only make the survey faster and easier to fill out, but the results would also be more uniform, accurate, and easier to compile afterwards.

Further research showed that providing an incentive or reward for returned surveys would help to improve the return rate. So the decision was made to include an incentive. But what would that incentive be? One could include money to pay them for their time and effort, except that that would be costly and beyond the bounds of the budget. One could include candy or some cheap trinket, but this did not seem very practical. Chances are it would not motivate someone to complete the survey, and it would make mailing more difficult. What about sending them a copy of the results of the survey? As directors of computing facilities they would probably be very interested in the results, and that would be a fairly economical way of providing an incentive.

The final goal was to be sure that after the directors completed the survey, that their surveys were returned to Illinois Wesleyan. A return envelope would make it easy for the directors to return them, at no cost or effort to themselves, and to be certain that the surveys were returned to the correct address, with no chance of misdirection or a misprint.

Methods

A large sample size of 260 colleges and universities was picked in order to

insure that the group of surveys returned would be large enough to be at least somewhat of a representative sample. Due to budget restrictions a larger sample size could not be used. Next samples were selected to include all of the colleges and universities in the Associated Colleges of the Midwest and in the Oberlin Group, because these are colleges that are typically compared with Illinois Wesleyan University. Next, the very best colleges and universities (regardless of size) were selected from U.S. News & World Report's "America's Best Colleges". Again, the focus was not with size at first, because many colleges may be larger due to a large graduate school enrollment. Also, a student's first consideration might be the quality of the facilities, and then the size. So the decision was made to focus on quality schools, and break down the results later.

The next decision was to mail the surveys, primarily because it was much less expensive. So, I set to work creating a survey that was clear, simple, and short. When finished, it was a sixteen question, two-page survey which asked questions such as: the number and type of computers and computer operating systems, the ability of students to remotely connect to the campus network, the facilities hours, the disciplines that use the facilities most, the number and type of staff, the reporting structure, the budget, the upgrading policy, and the education level of the director. (See appendix for a copy of the survey.)

The next step was to ready the surveys for mailing. Although personalization would not necessarily provide a significant increase in the return rate, it seemed that any increase would be helpful. So, I personalized as many surveys for which I could find the exact director's

names, which turned out to be about half. These names were then placed both at the top of the cover letter and on the envelope. As far as further personalization was concerned, it did not seem necessary to hand sign all 260 cover letters, based on my research, so photo copied signatures were used on all of them.

As an incentive for the completion and return of the survey, it was decided all those schools who were interested a copy of my results would be sent a copy. This seemed to be the most effective incentive option available, given the budget. Therefore, included on the survey was a box to check if a copy of the results was desired, and line where the directors could include their BITNET or INTERNET number if available. This last option would provide an even less expensive way to return the results or to ask questions if needed. Finally, a self-addressed stamped envelope was included in order to make the return of the surveys easy, cost-free and error-free.

Results

The hard work and personalization efforts paid-off. A very high return rate of 40% was achieved with 105 out of 260 surveys returned. Of these 105 surveys, 97 were usable. Those that were not usable were disqualified because they did not differentiate between academic computer facilities and administrative computer facilities and would have tremendously skewed the results. Illinois Wesleyan University was also included in the results.

These returned surveys were then broken into six different categories and the results for each of these categories were computed. The categories were as follows: All Schools, Large Schools, Medium Schools, Small Schools, High Budget Schools, and Low budget Schools. All Schools consisted of all 97 returned surveys. Large Schools consisted of schools with enrollments from 3500 - 44,000, with an average population of 10,669, and a median population of 7,586. There were 33 schools in this group. Medium Schools were composed of enrollments ranging from 900 - 3499, with an average population of 1988, and a median population of 1746. There were 49 schools in this group. Small Schools had enrollments of 250 - 899, with an average population of 641, and a median population of 793. There were 15 schools in this group. High Budget Schools spent $500,000 per year or more on their academic computer facilities. There were 44 schools in this group. Low Budget Schools spent from $0 - $499,999 per year on their academic computer services. There were 49 schools in this group.

The quantity of data generated by this survey was tremendous. These results could then be combined in different ways to create an even greater quantity of results. To properly record all of these results would require writing a very thick book. So, this paper will only cover the most interesting and applicable results to Illinois Wesleyan University. Graphs of the results discussed can be found in the appendix.

Question one asked, "Approximately how many of each of the following does your campus' academic computer facilities have?"
Here it was interesting to compare the average response of the medium-

sized schools with that of Illinois Wesleyan University. The results showed that neither had any mainframes; the average medium-sized school had 3 minicomputers -Wesleyan had none; the medium-sized school had 22 terminals on average -Wesleyan had none; the average medium-sized school had 163 networked PC's -compared with Wesleyans 145; and the average medium-sized school had 132 stand-alone PC's -while Wesleyan had 450.

Question two asked, "What kind of operating systems do you use? Here the results of all 97 schools show that 24.0% use DOS, 22.5% use Macintosh, 16.6% use Unix/Xenix, 15.6% use VAX VMS, 6.4% use some other operating system not on the survey, 5.6% use OS/2, 4.1% use VM, 2.3% use MVS/ESA, and 2.8% use DOS/VSE, OS/400, MVS/XA, or MVS/SP. Illinois Wesleyan reported using DOS, Macintosh, Unix/Xenix, and OS/2.

The results from Question three were not used. (See discussion section).

Question four asked, "Can students who live off campus remotely connect to a campus network?" Of the average medium-sized school, 73.5% answered yes, while 26.5% answered no. Illinois Wesleyan University answered no.

Question five asked, "Please list the 5 disciplines that use your academic computer facilities the most. All schools were considered in these results. The following are the percentages that each discipline was reported using the academic computing facilities: math/science 59.0%,

Business/Economics 18.0%, Social Sciences 10.0%, Humanities 10.0%, and Arts 3.0%. Illinois Wesleyan listed the following: computer science, mathematics, sociology, business, and economics.

Question six asked which hours the academic computing center was available for student use. Of the average medium-sized school, 26.5% had 24 hour facilities on Monday - Thursday, while 73.5%, including Illinois Wesleyan University, did not.

Question seven asked, "Approximately how many employees do you have on your support staff?" Here, the average small school had 2.9 full-time equivalent (FTE) employees and 9 students. The average medium school had 5.1 FTE employees and 34 students. Meanwhile, the average large school had 32.3 FTE employees and 48 students. Illinois Wesleyan University had 3 FTE employees and 19 students.

Question eight asked, "Approximately how many people are specifically responsible for each of the following areas?" It was found that the average small school had 1.5 employees dedicated to software support, 1.3 for hardware support, .8 for faculty/staff purchasing, and 1.1 for faculty/staff training. The average medium-size school devoted 2.1 employees to software support, 1.6 to hardware support, .7 to faculty/staff purchasing, and 1.4 to faculty/staff training. The average large size school had 11.0 employees for software support, 8.4 for hardware support, 1.7 for faculty/staff purchasing, and 3.9 for faculty/staff training. Illinois Wesleyan University reported 1 for software support, .6 for hardware support, .3 for faculty/staff purchasing, and 1 for faculty/staff training.

Question nine asked, "Who makes decisions related to your academic computer facilities?" Out of all the schools surveyed, 32.6% said a combination of a committee and administration made the decision, 31.6% said decisions were made by a committee alone, 17.9% said administration alone, 13.7% said the director of the academic computing facilities made the decisions, 2.1% said a combination of the director and administration made the decisions, and 2.1% chose other. Illinois Wesleyan reported that decisions were made by a combination of a committee and administration.

Question ten asked, "What percent of the Education and General Fund is spent on academic computer services?" Here the average small school reported 3.48%, the average medium school reported 1.07%, the average large school reported 2.79%, the average high budget school reported 4.79%, and the average low budget school reported 1.42%. In comparison, Illinois Wesleyan University reported 1.45%.

Question eleven asked, "Approximately what is your total annual budget involving your academic computing facilities? (Include salaries and benefits.)" Here the average large school checked $750,000 - $999,999. The average medium school checked $250,000 - $499,999. Additionally, the average small school checked $100,000 - $249,999. Illinois Wesleyan University reported $250,000 - $499,999.

Question twelve asked, "Approximately what percent of that is spent on upgrading machines each year?" The average large school spent 11.2%;

the average medium school spent 13.1%; and the average small school spent 10.2%. Illinois Wesleyan University has not yet upgraded machines and therefore responded "not applicable".

Question thirteen asked, "Approximately what percent of that is spent on upgrading software each year?" The average large school spent 7.4%; the average medium school spent 7.4%, and the average small school spent 10.3%. Illinois Wesleyan University reported spending 5%.

Question fourteen asked if a school was more likely to upgrade with each new software version released or to wait a few versions. Here, out of all the schools surveyed, the average response was to wait a few versions to upgrade. Illinois Wesleyan's response agreed with this average.

Question fifteen asked, "What are your qualifications?" Out of all the schools surveyed, 41.2% of the directors had master's degrees, 36.1% had a doctorate, 18.6% had a bachelor's degree, 2.1% had a technical degree, 1.0% had an associate's degree, and 1.0% listed on-the-job training as their highest level of education. Illinois Wesleyan University reported a bachelor's degree.

Question sixteen asked, "To whom do you report?" Out of all the schools surveyed, 32.1% of directors reported to the Provost or Vice President for Academic Affairs, 19.8% reported to an Associate level administrator (such as Associate Dean, Associate Provost, Vice Provost), 19.8% reported to a Dean (such as Dean of Faculty, Dean of Academic Affairs, Dean of College), 16.0% reported to the President or a Vice President, 9.9%

reported to Library or Information Services, and 2.5% said other. Illinois Wesleyan's director of academic computing facilities reports to the Associate Dean.

Discussion

The 40% return rate received was amazing. It seems that personalizing the survey with the exact person's name was probably at least a little bit helpful. About 55% of all the returned surveys were surveys that were sent to specific people. Also, keeping the survey short, clear, and simple, providing a self-addressed stamped return envelope, and providing the incentive of the results probably contributed to that high rate.

While mailing the survey was the least expensive method of obtaining the results, it did have its drawbacks. It did not allow for questions that some directors may have had when completing the survey. Because of this, not all of the responses may be as accurate as they might have been if another method was used. Also, not all of the participants followed the directions, causing some of the questions and surveys to be disregarded. The most blatant case of this was directors considering both academic and administrative computing facilities in their estimates. In a more personal form of surveying this could have been corrected.

Question 1 - "Approximately how many of each of the following does your campus' academic computer facilities have?"

Here it was surprising to discover that the average medium-sized school had three minicomputers available for academic use. This compared with Wesleyan's total lack of minicomputers seems like an important area to focus on improving. While the number of stand-alone PC's Wesleyan reports is certainly very impressive and an important asset, the school is still lacking a lot of computing power without any minicomputers.

If the opportunity arose to modify and re-send this survey, two other categories should be added in order to be more inclusive of all available technology. These categories would be supercomputers and workstations. It might also be interesting to break down the different types of workstations.

Question 2 - "What kind of operating systems do you use?

Here the results were pretty straight forward and as one might expect. However it was a little surprising that UNIX/XENIX was used only 6% less than Macintosh.

Question 3 - "Approximately what percentage of students on campus have access to an academic computer facilities network from their rooms?

The results from this question were disregarded, because it seemed that there was a large amount of confusion as to what was meant by "access".

Some directors thought that access meant hard-wired access only, while others thought it meant dial-up access. In other words, some thought that there had to be an actual wire specifically connecting each computer, while others thought that attaching the computer to the phone lines was what was meant. Since it was difficult to always accurately determine which they assumed, and since this difference would considerably change the results, the question was disregarded.

Question 4 - "Can students who live off campus remotely connect to a campus network?"

This question produced some of the most dramatic results of the survey. With Wesleyan being in the minority on such an important issue as student remote access to the facilities, it seems that this is probably one of the most important and urgent problems that need to be remedied if Wesleyan wants to remain competitive.

Question 5 - "Please list the 5 disciplines that use your academic computer facilities the most."

Here the mathematics and sciences were shown to use the facilities by far the most as expected, but it seemed surprising that business and economics was so far behind the mathematics and sciences. Undoubtedly that will change in the next few years, as more business and economics classes require the use of spreadsheets, databases, graphing, and presentation

software. Additionally, it seemed surprising that the arts use the facilities so little. One would think that with all of the graphics art software and music programs, that the use of computers would be an important part of the major. However, one reason for this seeming lack of use may simply be that the average school probably has a much higher enrollment of science or business majors than art majors and therefore would report the business and science majors as using the facilities more.

Question 6 - During which hours on the following days is your academic computing center available for student use?

This question provided some extremely interesting results. Recall question four where directors of medium schools were asked about students remotely connecting to campus. The results of that question showed that 73.5% of the schools could remotely connect while 26.5% could not. Now question six revealed that 73.5% of all medium-sized schools did not provide 24 hour access to computing facilities while 26.5% did. It is interesting to speculate whether the 26.5% who could not remotely connect are in large part the same 26.5% that provide their students with 24 hour facilities. Since Illinois Wesleyan can not do either, it seems that this is one of the most critical problems which Wesleyan should tackle immediately to remain competitive.

Question 7 - "Approximately how many employees do you have on your support staff?"

Here is another important problem on which Wesleyan should focus. Wesleyan has 3 full-time equivalent employees as compared with the average medium school which had 5.1. Also Wesleyan lags quite a bit behind in the number of student employees as compared with the average medium-sized school, having only 19 compared with 34. Since staff support can have quite an impact on the quality of a facility, this is a major concern. It is also interesting to note that the medium-sized schools appear to rely much more heavily on student help proportionally than either the large or small schools. They also use considerably fewer full-time employees proportionally than either the large or small schools.

Question 8 - "Approximately how many people are specifically responsible for each of the following areas?"

Of course Wesleyan is below average again in all of these categories since it was in question 7. Here it is interesting to note again how few full-time employees medium-size schools use compared with the large and small schools. There is less than one person difference between the average number of employees for a medium-sized school and the average number of employees for a small school. In fact, in the case of faculty/staff purchasing, the medium school has a slightly lower number of employees than the small school. It is also of interest to note by looking at the large schools, how many more employees focus on hardware and software support, rather than faculty/staff purchasing or training.

Question 9 - "Who makes decisions related to your academic computer facilities?"

The results of this question show that the majority of schools use either a committee and administration to make their decisions, or just a committee, and these choices are fairly equal in popularity.

Question 10 - "What percent of the Education and General Fund is spent on academic computer services?"

Here it was interesting to see that Illinois Wesleyan rated quite a bit above average, for both its size and its budget. This is an important strong point. It seems that the reason Wesleyan's funding is higher than average, yet its facilities are below average in some areas, is that the facilities are so new. It is very costly to start up a new computing facility, and it may be much less expensive to simply maintain one. It seems that if Illinois Wesleyan continues to get such financial support that in the near future their current deficiencies will be corrected.

One interesting result of this question is that small-size schools spend a far larger percent of their Education & General Fund on computing facilities than either the large or medium schools. One reason for this may be that small schools have to spend a larger percent of their smaller budget in order to keep up with technology and remain competitive. It seems that this high expense of technology must be quite draining to the small schools.

The results of this question were also broken down by the budget of the school. Here it is interesting to note that the schools with a larger budget also spend a far larger percent of that budget on computing services.

Question 11 - "Approximately what is your total annual budget involving your academic computing facilities? (Include salaries and benefits.)"

Wesleyan fits right into the average budget for a school its size for this question. The reader might notice the large difference in budgets between medium and large schools, although some of that may be because large schools were defined in such a larger range than medium or small schools.

Question 12 - "Approximately what percent of that is spent on upgrading machines each year?"

It appears that medium-size schools spend a larger percent on upgrading machines than large schools. One reason for this may be, as some schools indicated in the margins of my survey, that large schools often get grants, donations, and corporate matches that help pay for a lot of the hardware costs. So if these monies were taken into consideration, machine upgrading costs would probably be much higher for the large school.

Question 13 - "Approximately what percent of that is spent on upgrading

software each year?"

Here it is surprising how little large and medium schools spend in proportion to small schools. Also notice that small schools spend a much higher percent of their budget in both question 12 and 13. Again it seems that small schools are forced to spend such a high percentage of their smaller budgets simply to remain competitive. Also large schools may spend so little on software upgrading because of large discounts received for buying such large quantities.

Question 14 - "Are you more likely to: upgrade with each new version, wait a few versions to upgrade, or other?"

Here the overall response was that how often software was upgraded depended on how big of a difference there was between versions, and how important the program was to the school. While 45% of all schools said they would wait a few versions, 33% said they upgrade with each new version.

Question 15 - "What are your qualifications?"

Here it was interesting to find how many directors of computing centers had either a masters or a doctorate degree. It was even more interesting to discover in what fields these degrees were held. It seems that the majority of degrees were in the mathematics or sciences (excluding

computer science). A smaller number were in business or computer science and an even smaller amount were in the humanities, social sciences, and arts. In fact the distribution was very much like the distribution in question five on which disciplines use the facilities most. It seemed quite interesting that so few of these directors received their degrees in computer science. Actually, none of the doctorates were in computer science. However, upon further reflection, for those who have a doctorate or masters degree from several years ago, the degree of computer science was very new or may not have existed at many schools. Also, someone with such a high degree in computer science would most likely be working in businesses and industries for more money.

Question 16 - "To whom do you report?"

Here the results were pretty much as one might expect. However it is interesting to note that 16% report straight to the President or a Vice President. Schools with this reporting structure are probably very small or have very new computing facilities and have not yet developed an extended reporting structure.

Conclusion

In many ways Illinois Wesleyan's academic computer facilities are very similar to those of other comparable schools its size. However, there are a few very important areas in which Wesleyan lags considerably behind its

competition. These areas include: a lack of minicomputers and terminals, the inability to remotely connect to a campus network, a shortage of full-time and student employees, and a small amount of the budget allocated to upgrading. Admittedly, Wesleyan's computer facilities and Computer Science program are very young, and thus not yet fully developed. However, in order to remain competitive in this rapidly changing information society, Illinois Wesleyan may want to enhance its existing academic computer facilities.

Appendix

INSTRUCTIONS:

To answer the following questions simply put an X in the box or fill in the blank as appropriate. Notice that all references to computer facilities refer to the academic computer facilities on your campus.

1. Approximately **how many** of each of the following does your campus' academic computer facilities have?

   _____ Mainframes
   _____ Terminals
   _____ Minicomputers
   _____ Networked PC's
   _____ Stand-alone PC's

2. What kind of operating systems do you use? (*Check all that apply.*)

   ☐ MVS/ESA
   ☐ MVS/SP
   ☐ MVS/XA
   ☐ VM
   ☐ OS/400
   ☐ VAX VMS
   ☐ DOS/VSE
   ☐ DOS
   ☐ OS/2
   ☐ Macintosh
   ☐ UNIX/XENIX
   ☐ Other

3. Approximately what percentage of students on campus have access to an academic computer facilities network from their rooms?

   _____%

4. Can students who live off campus remotely connect to a campus network?

   ☐ Yes
   ☐ No

5. Please list the 5 disciplines that use your academic computer facilities the most.

   _____ _____ _____

   _____ _____

6. During **which hours** on the following days is your academic computing center available for student use?

   _____ Monday - Thursday
   _____ Friday
   _____ Saturday
   _____ Sunday

7. Approximately **how many** employees do you have on your support staff?

   _____ Full-time equivalent
   _____ Student

8. Approximately **how many** people are specifically responsible for each of the following areas?

   _____ Software support
   _____ Hardware support
   _____ Faculty/staff purchasing
   _____ Faculty/staff training
   _____ Other _____

9. Who makes decisions related to your academic computer facilities, i.e. committee, administration, etc.?

_____

10 What percent of the Education and General Fund is spent on academic computer services? ____

11. Approximately what is your total annual budget involving your academic computer facilities? (*Include salaries and benefits.*)

- ☐ Over $1 Million
- ☐ $750,000 - $999,999
- ☐ $500,000 - $749,999
- ☐ $250,000 - $499,999
- ☐ $100,000 - $249,999
- ☐ Less than $100,000

12. Approximately what percent of that is spent on upgrading machines each year?

____%

13. Approximately what percent of that is spent on upgrading software each year?

____%

14. Are you more likely to:

- ☐ Upgrade with each new version
- ☐ Wait a few versions to upgrade
- ☐ Other

Please explain _____

15. What are your qualifications?

- ☐ Technical in _____
- ☐ Associate's in _____
- ☐ Bachelor's in _____
- ☐ Master's in _____
- ☐ Doctorate in _____
- ☐ Other in _____
- ☐ Other C.S. related _____

16. To whom do you report?

(*Title*)_____

OPTIONAL

Would you like a copy of the results of this survey upon completion?

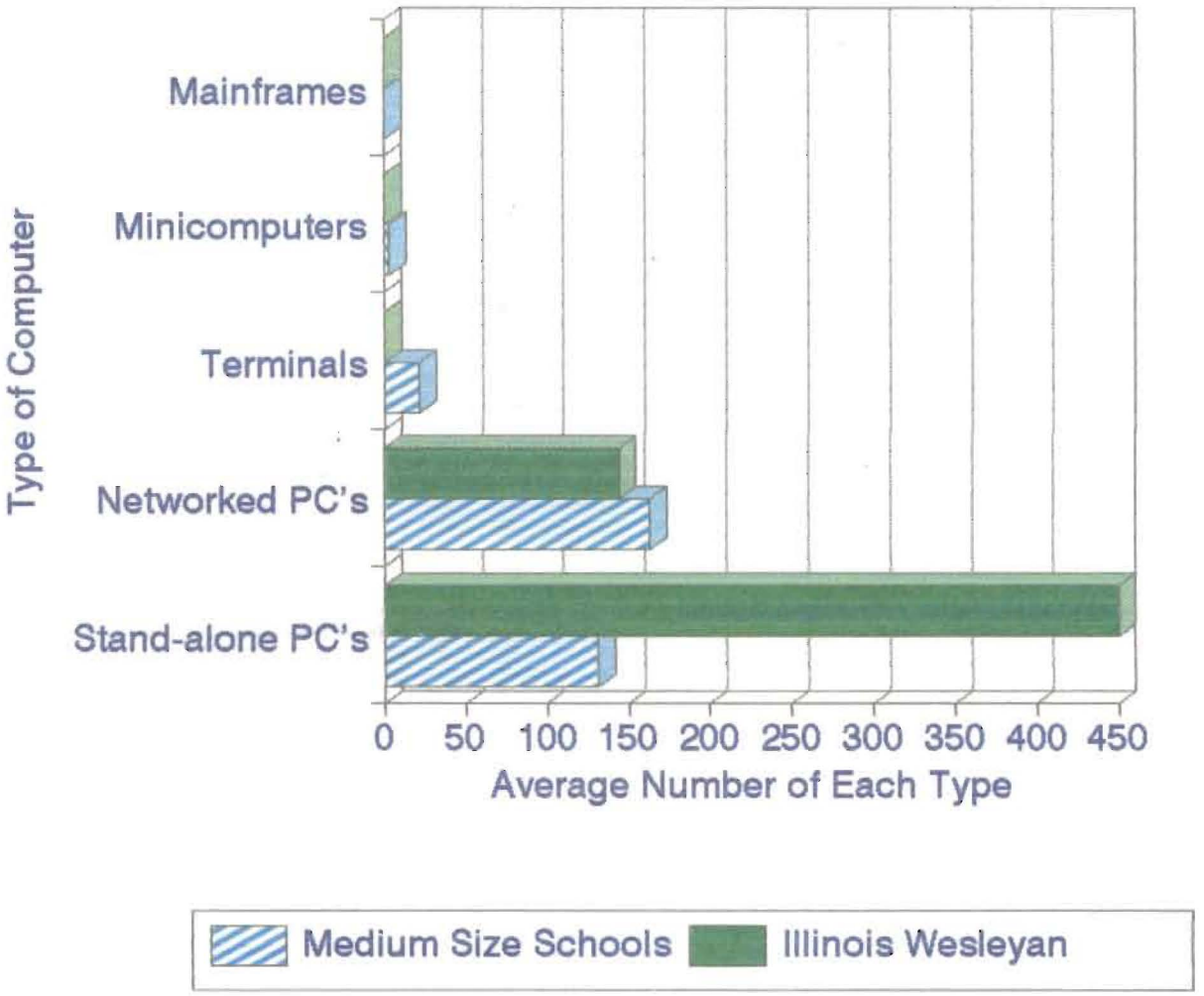
- ☐ Yes
- ☐ No

Please provide us with your BITNET or INTERNET address if available.

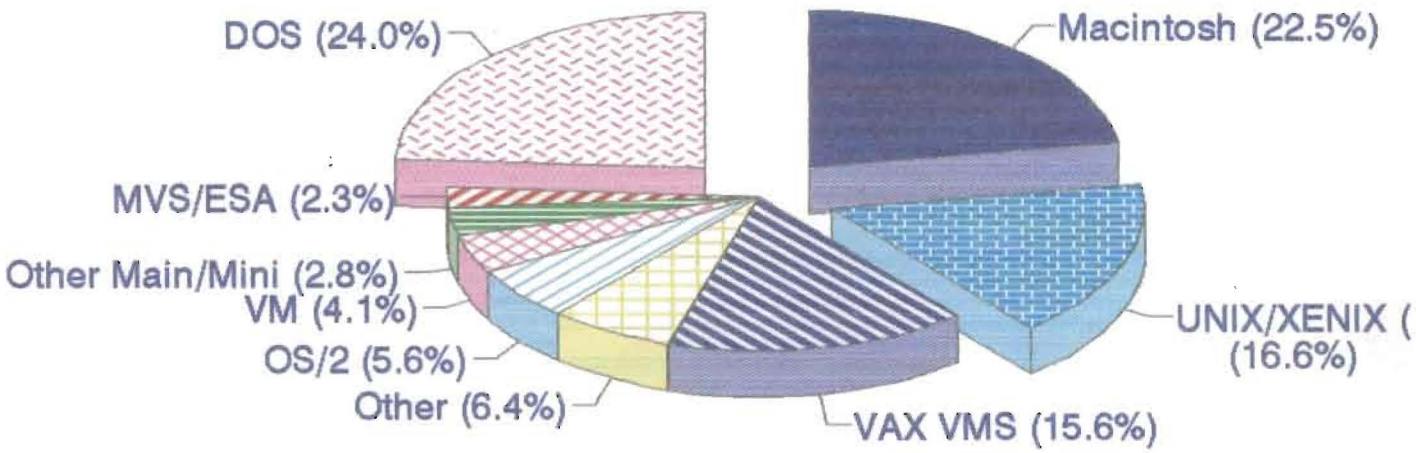
_____

Thank You
For Your Time!

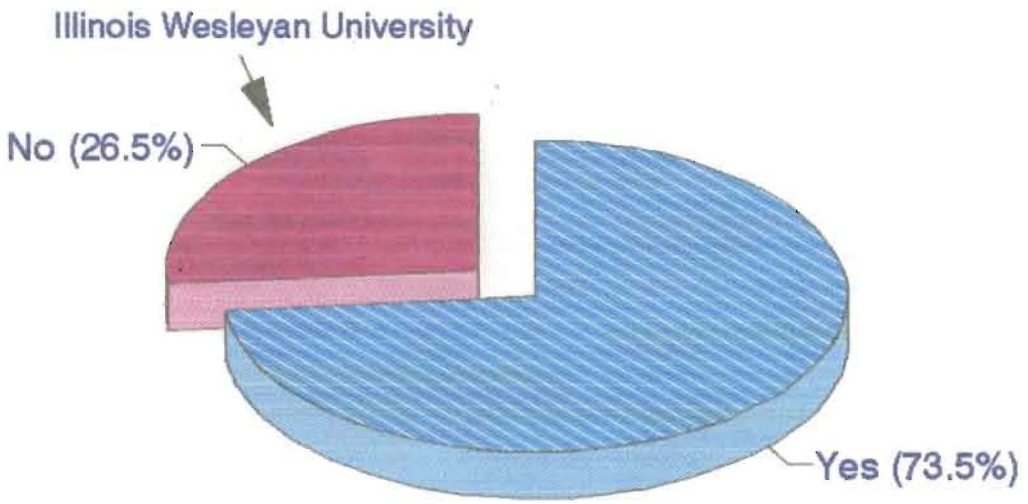
How many of each type of computer do you have?



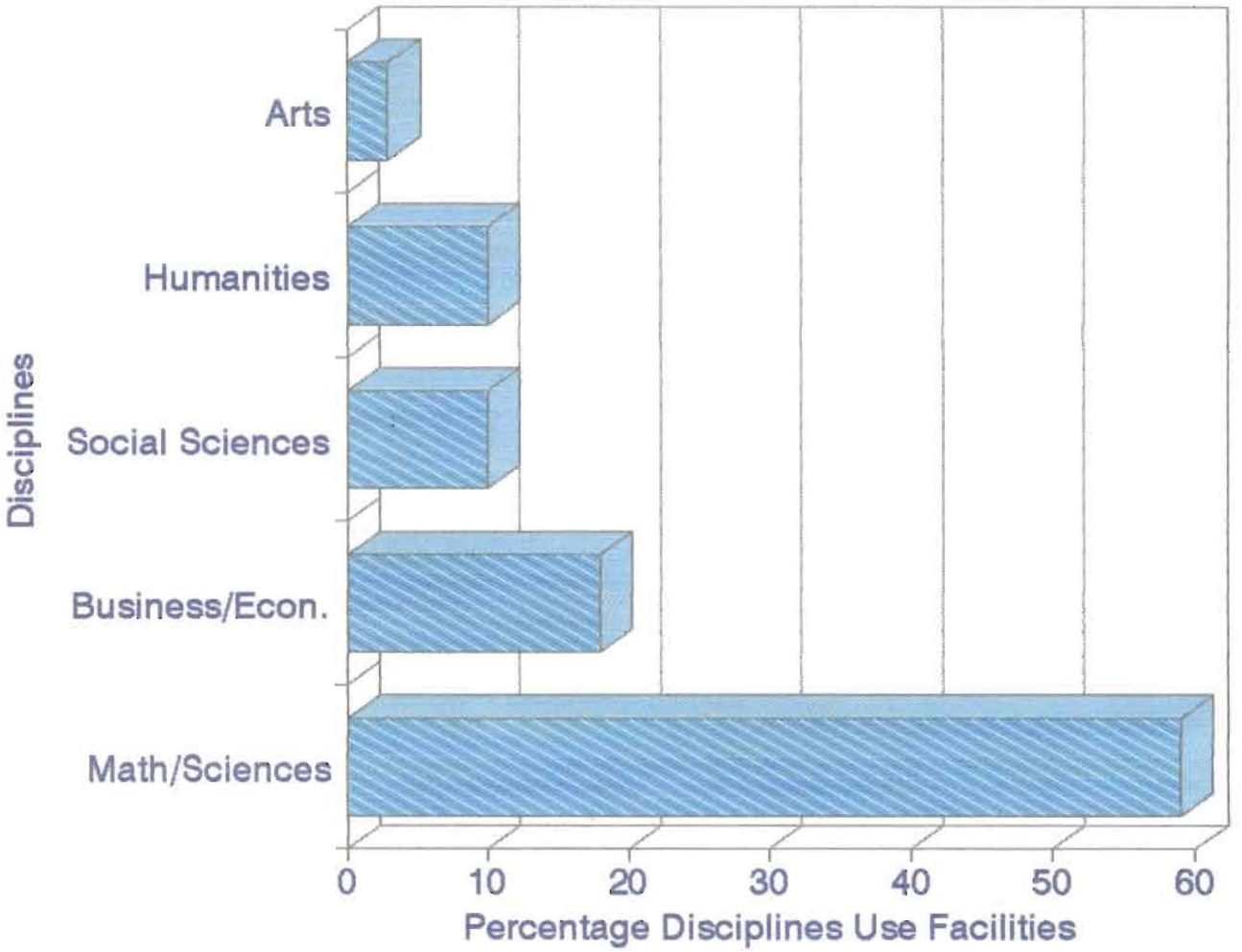
Which operating systems are used most?



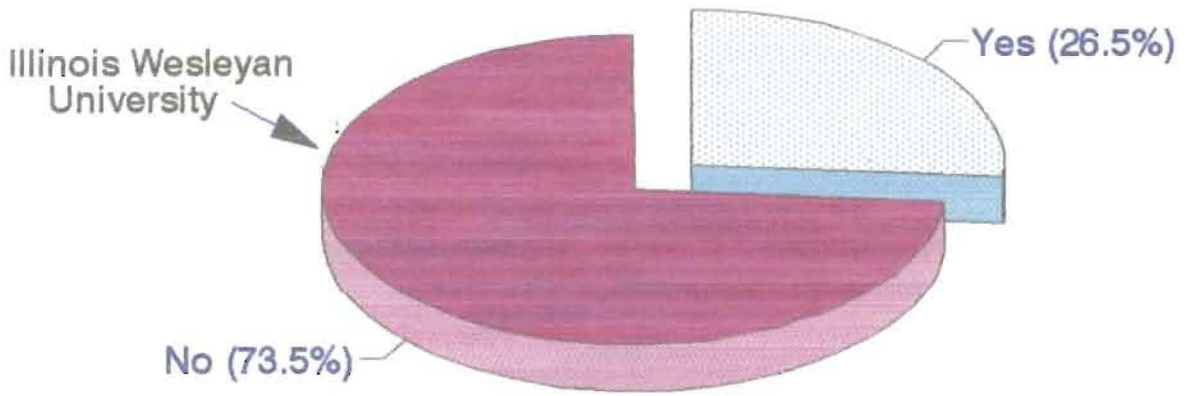
Can students remotely connect to a campus network?



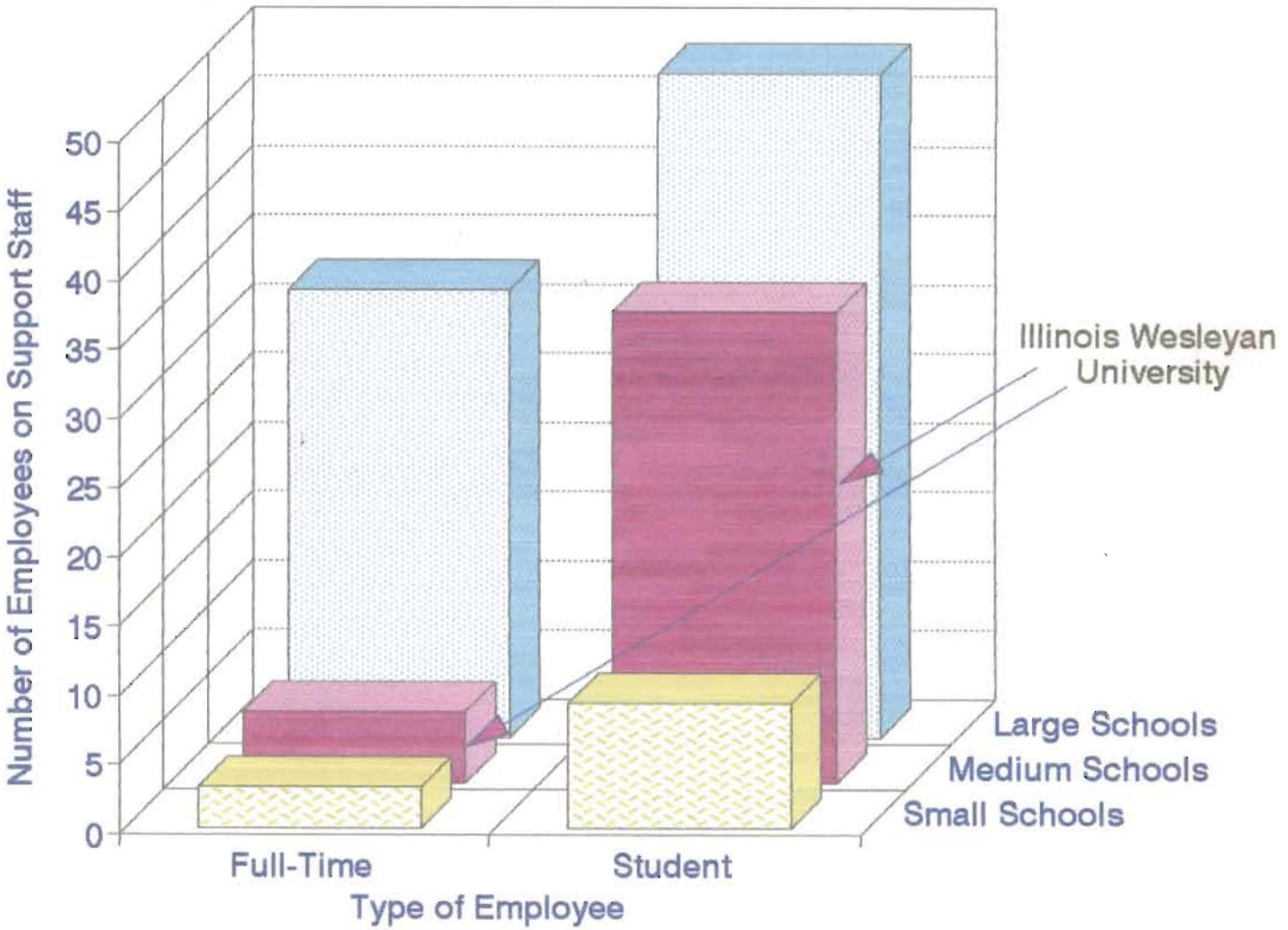
Which disciplines use the academic computer facilities most?

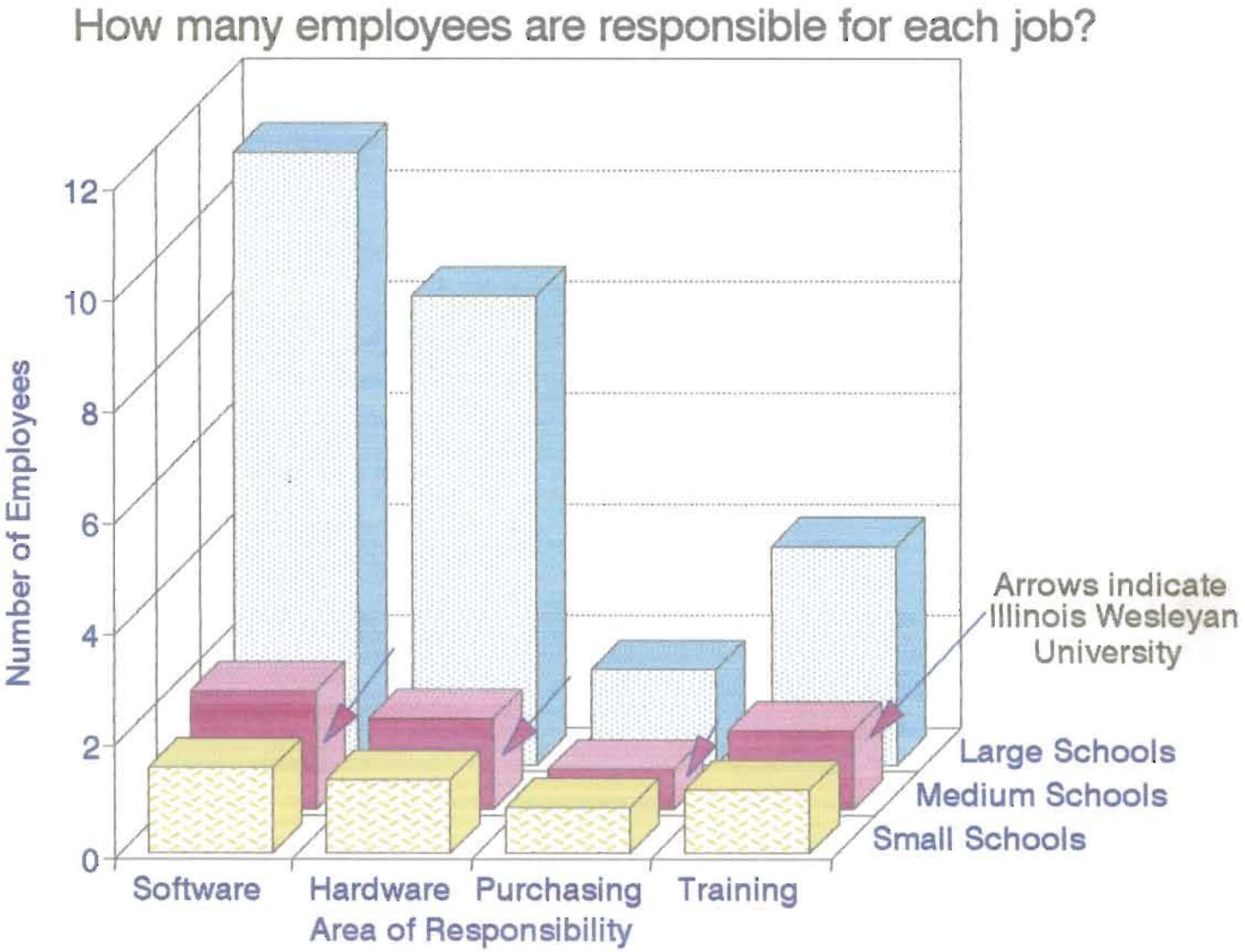


Is your Academic Computing Center
available for student use
24 hours a day Monday - Thursday?

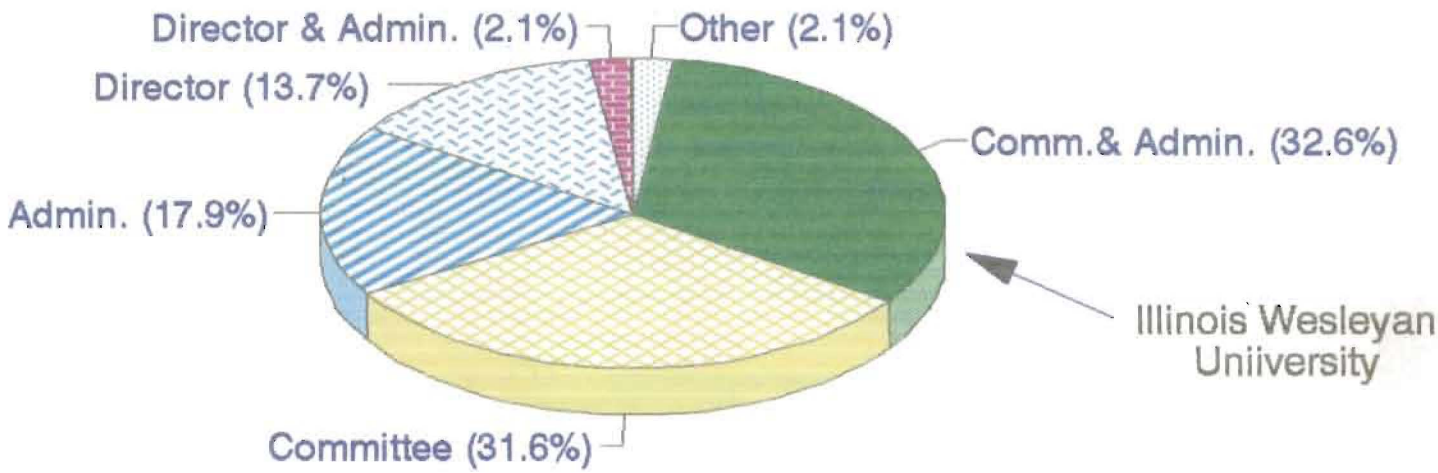


How many employees do you have on your support staff?

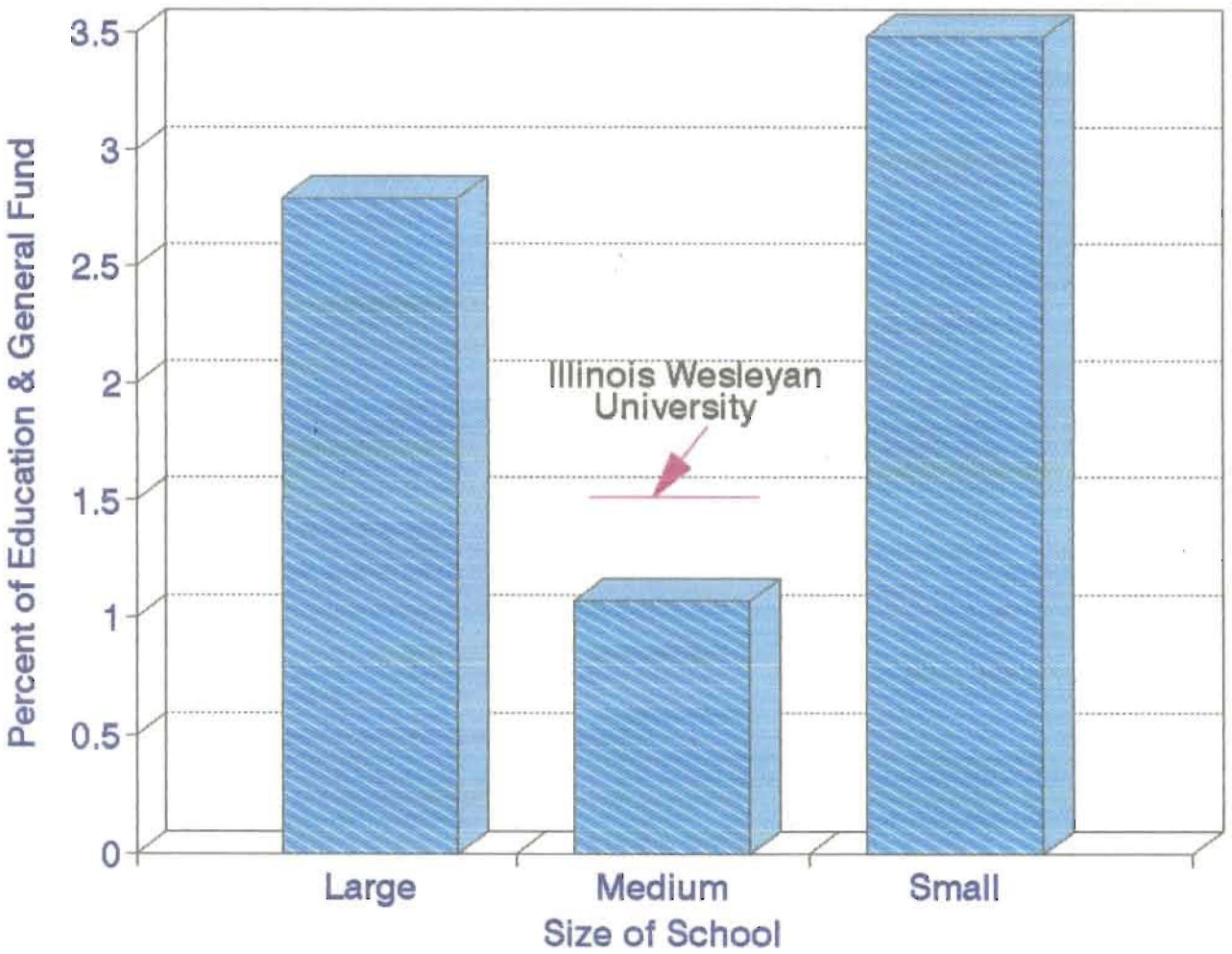


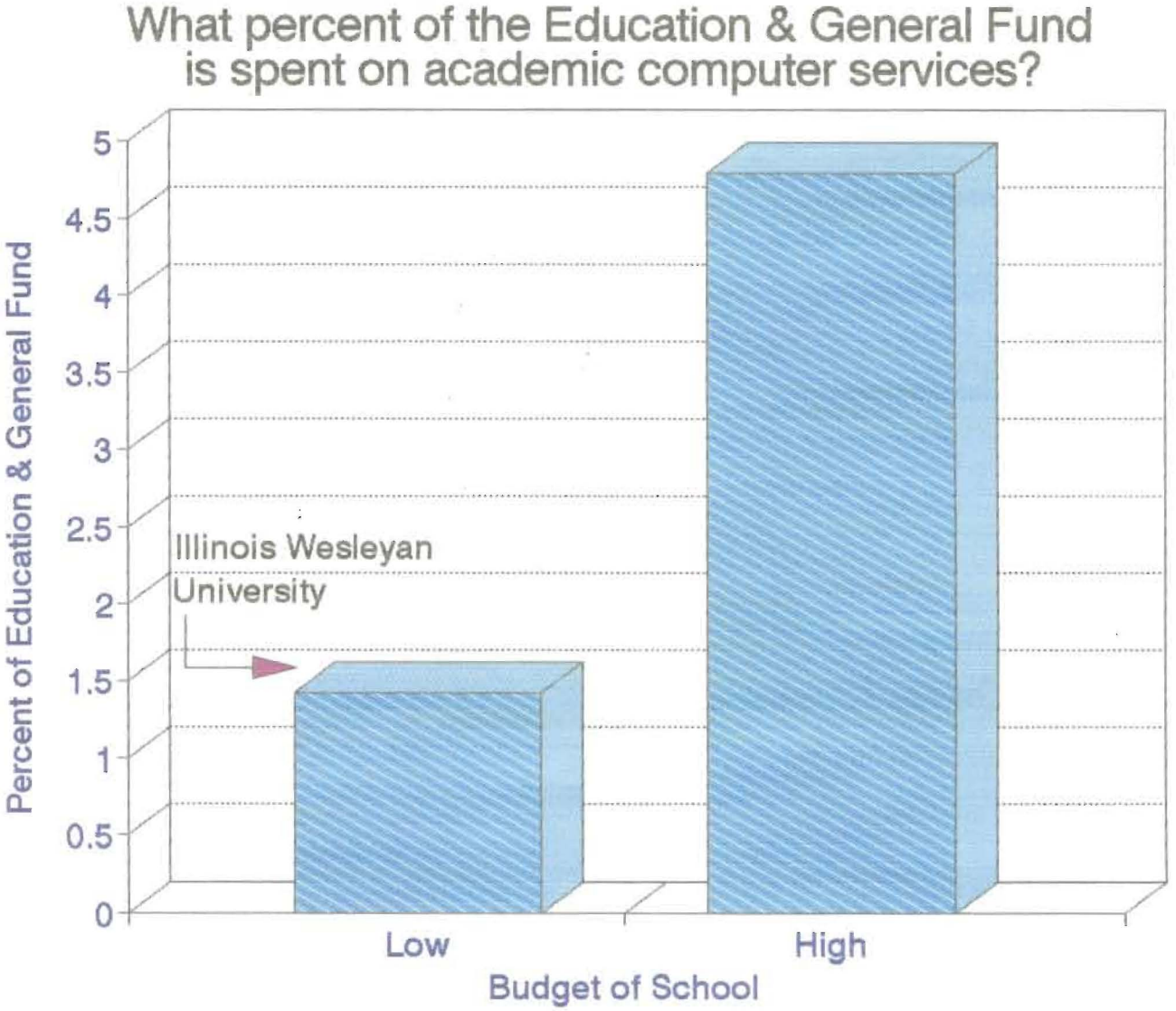

How many employees are responsible for each job?
Number of Employees
0
2
4
6
8
10
12
Software
Hardware
Purchasing
Training
Area of Responsibility
Arrows indicate Illinois Wesleyan University
Large Schools
Medium Schools
Small Schools

Who makes decisions related to your computer facilities?

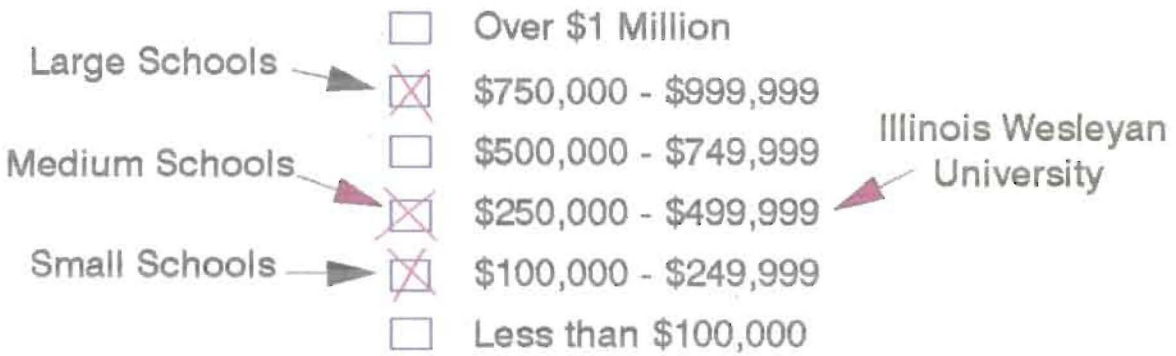


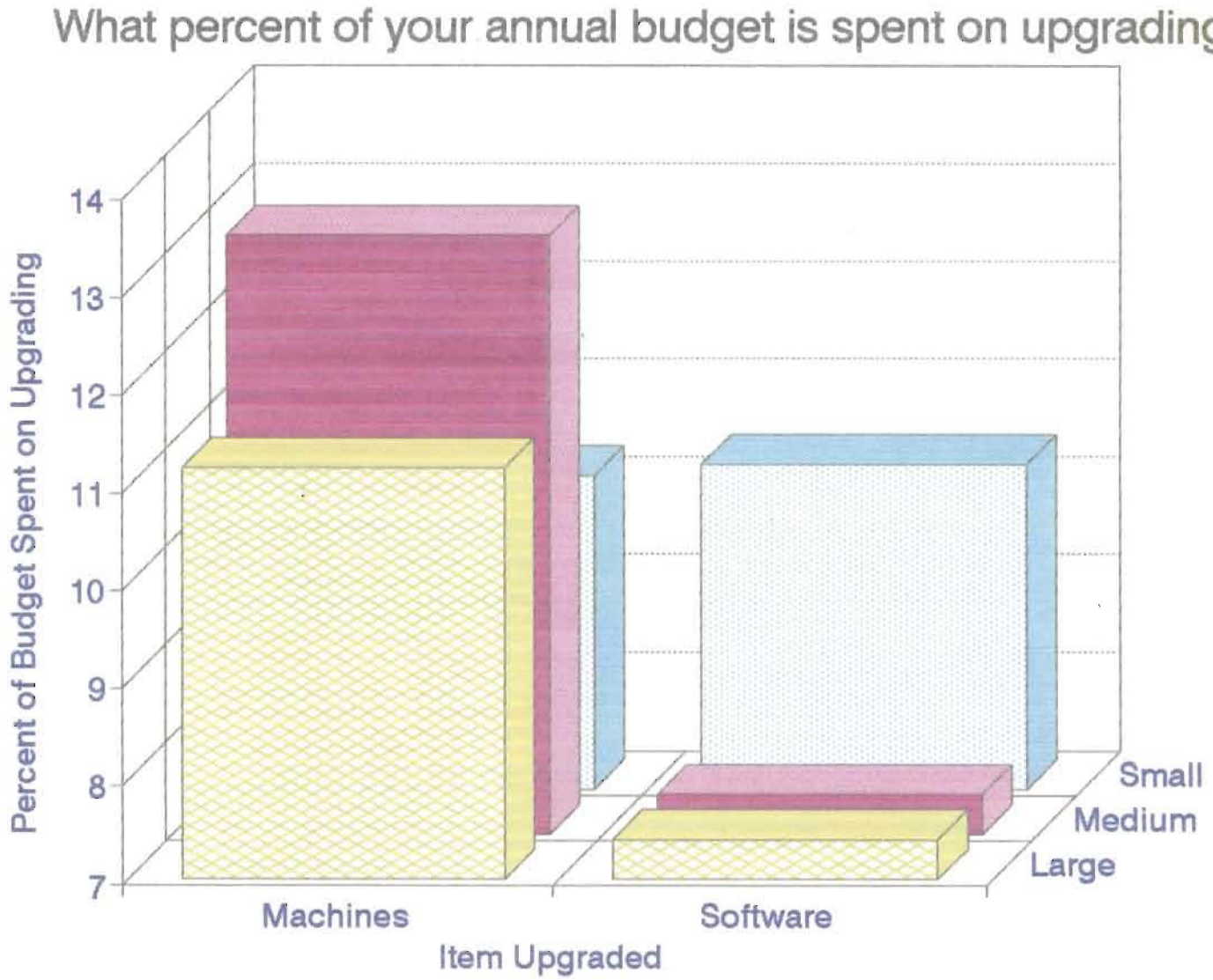
What percent of the Education & General Fund is spent on academic computer services?




What percent of the Education & General Fund is spent on academic computer services?
Percent of Education & General Fund
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Illinois Wesleyan University
Low
High
Budget of School

Approximately what is your total annual budget involving your academic computer services?




What percent of your annual budget is spent on upgrading?
Percent of Budget Spent on Upgrading
14
13
12
11
10
9
8
7
Machines
Software
Item Upgraded
Small
Medium
Large

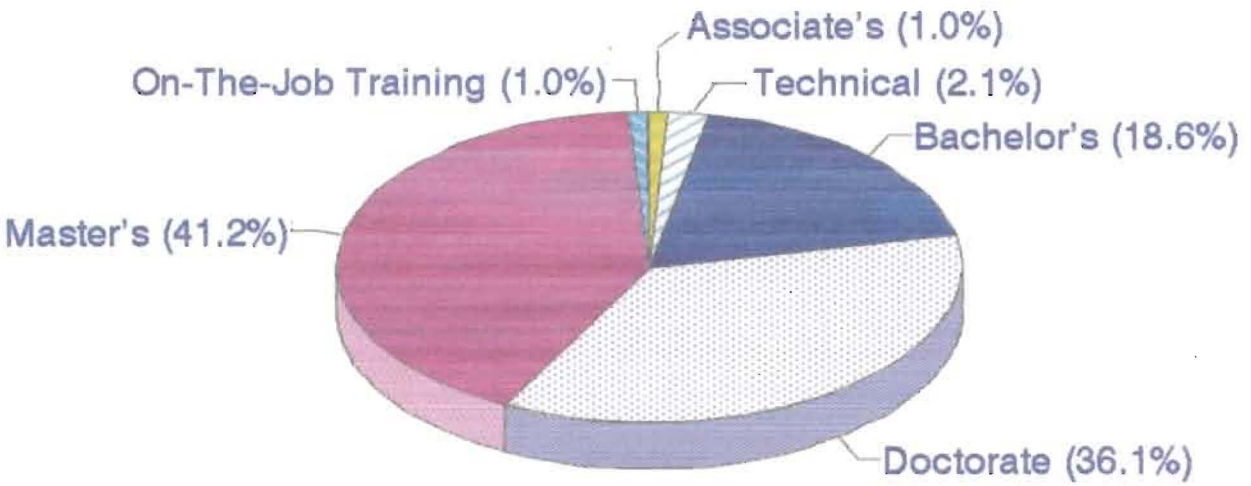
Are you more likely to:

Average of All Schools →

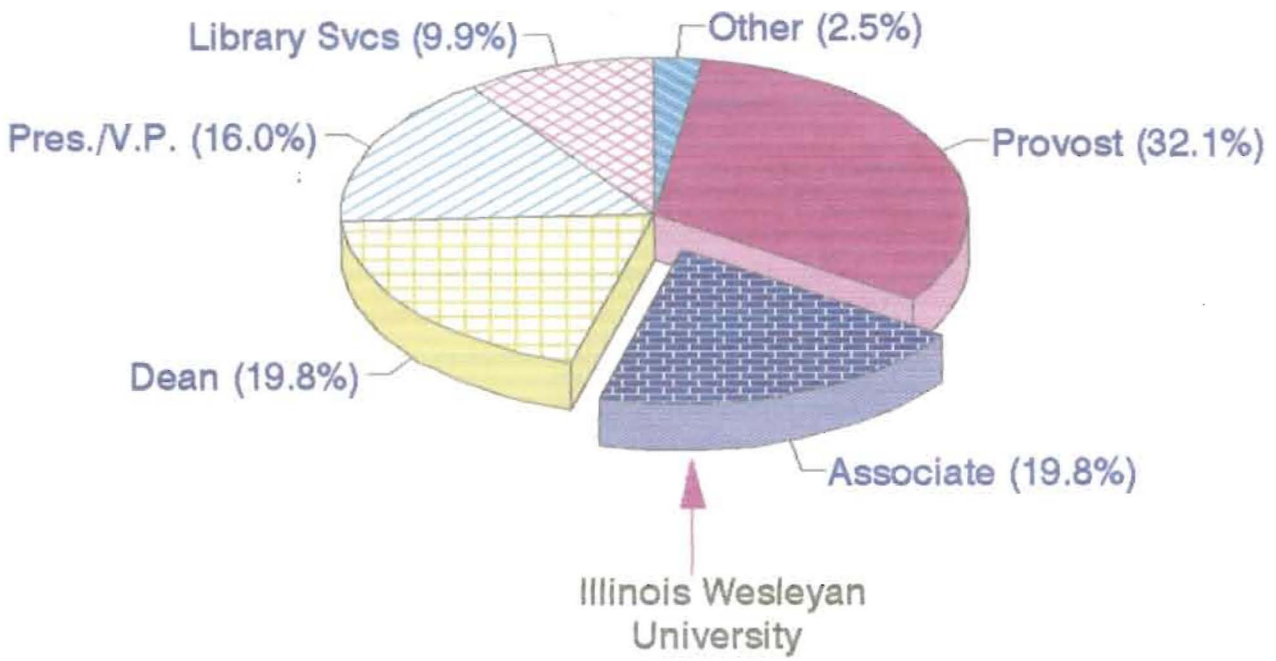
- ☐ Upgrade with each new version
- ☒ Wait a few versions to upgrade
- ☐ Other

Please explain It depends

What are your qualifications?



To whom do you report?



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